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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,640	03/30/2001	Tsutomu Yamazaki	018775-823	3564

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EXAMINER	
LU, TOM Y	

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/820,640	YAMAZAKI, TSUTOMU	
	Examiner	Art Unit	
	Tom Y Lu	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-2 and 5-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Sawada et al (U.S. 6,181,437) The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

a. Referring to Claim 1, Sawada discloses a first converter which extracts a line image region in input bit map image data and converts the line image to vector data (Sawada at column 7 and line 64 and column 8, lines 5-6, teaches capturing of the image data, determination of the line image in line image detecting circuit 12. Note the image data herein is captured and converted into binary form,

column 5, line 7; and the line image is converted to vector data as shown in figure 5, where pixel values of 50, 160 ... are the magnitudes and the directions are horizontal and vertical); a second converter which converts bit map data of pixels in the input bit map image data around the line image of the line image region according to a side where a pixel in the pixels exists relative to the line image region defined by the vector data and according to the bit map data of pixels around the line image region (the isolated points at column 8, line 10, are the claimed "bit map data of pixels in the input bit map image data around the line image of the line image region", which are inputted to intensity converter circuit 18, the claimed "second converter", to be converted to intensity value of 0, and the isolated pixels are on one side of the line image as shown in figure 14b, and the conversion of the isolated pixels are associated with the neighboring pixels, column 8, lines 10-31); and a composer which composes the vector data of the line image obtained by said first converter and the bit map data converted by said second converter (the output means at the intensity converter 18 is the claimed "composer", which outputs the edge enhanced image data, column 9, lines 35-45, which composes the vector data of the line image obtained by said first converter and the bitmap data converted by said second converter).

b. Referring to Claim 2, Sawada discloses a character recognizer which recognizes characters in the input bit map data and converts the recognized characters to character codes, wherein said composer composes character data based on the character codes with the vector data and the bit map data (column 1, lines 15-16, a

copying machine or a printer is the claimed "character recognizer", or at least includes a character recognizer; column 10, line 53).

c. Referring to Claim 5, Sawada discloses wherein the pixel around the line image region are pixels far from the line image by a predetermined distance (at column 8, line 27, Sawada teaches using 3x3 window to determine whether a target pixel is an isolated pixel, therefore, the maximum distance of a isolated pixel is 3 pixels away from the line image; and the predetermined distance herein is 3 pixels).

d. Referring to Claim 6, Sawada discloses wherein the distance is along a direction perpendicular to the line image (see figure 14b, the isolated pixels are perpendicular to the line image).

e. Referring to Claim 7, Sawada discloses wherein said image processor further comprises an image reader device which reads a document and provides the input bit map data of the document to said first and second converters (a scanner is an image reader, column 12, line 14).

f. With regard to Claim 8, see explanation in Claim 1.

g. With regard to Claim 9, the only difference between Claim 1 and Claim 9 is Claim 9 calls for additional limitation of "a storage medium, which can be read by a computer" the storage medium storing a program", which Sawada teaches the image processing correction device 10 can be a personal computer, column 12, line 15, which inherently contains a storage medium storing a program.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada in view of Takakura et al (U.S. Patent No. 4,878,178). The arguments in Paragraph 2.a above as to the applicability of Sawada are incorporated herein. Sawada teaches composing the bit map data nad the vector data; however, Sawada does not explicitly teach wherein the vector data obtained by said first converter and the bit map data converter by said second converter are stored separately in a storage device. Takakura in figure 16, shows the image information, which is the claimed "bit map data", and the edge information, which is the claimed "vector data", are stored in a multi-purpose memory 15 separately. At the time the invention was made, a person of ordinary skill in the art would have been motivated to have a multi-purpose memory as a storage memory in Sawada because the purpose of Sawada's system is edge enhancement (Sawada: column 2, lines 1-2); and the purpose of a multi-purpose memory in Takakura is to ensure that "the edge may not be conspicuous", column 13, lines 8-13.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Luo et al, U.S. Patent No. 5,870,103, see column 4.

b. Robinson et al, U.S. Patent No. 4,855,934, see columns 4-5.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu

LEO BOUDREAU
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